Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for correcting defects in X-ray images (R) with the aid of a defect map (D), comprising the steps of:

[[a)]] (a) checking all picture elements (p) of an X-ray image (I) which has been pre-corrected with a current defect map (D) to determine whether values (W(p)) of a corresponding picture element lies between specified limits W_{min} and W_{max}, and if so, then (a.1) making corresponding entries in a test number map (T_map) to record how often each picture element has been analyzed for defects and (a.2) ~~classification of~~ classifying respective ones of the picture elements (p) on [[an]] the X-ray image (I) which has been pre-corrected with the current defect map (D) as ~~"potentially defective"~~ potentially defective if their corresponding value (W(p)) differs from [[the]] an interval ([G_u, G_o]) of [[the]] picture element values in a neighborhood (n(p)) assigned to it by a specified degree, and [[the]] saving [[of the]] picture elements (p)[[,]] thus classified in a candidate map (C_map);

(b) refreshing the defect map (D) with the aid of (b.1) the T_map and (b.2) the C_map, wherein a first check is performed for each picture element (p) to determine whether it is entered in the T_map more than a minimum number of times, and a further check is performed to determine whether the corresponding picture element (p) has been classified as a potential defect more than another minimum number of times, and responsive to positive outcomes of the first and second checks, then refreshing the defect map (D) with all the corresponding picture elements (p) from the candidate map (C_map) (i) which have been classified as ~~"potentially defective"~~ potentially defective ~~in several X-ray images (I)~~ and (ii) which also fulfill other criteria~~, where appropriate~~; and

(c) ~~correction of~~ correcting further X-ray images (R) with the aid of the refreshed defect map (D).

2. (Currently Amended) [[A]] The method according to claim 1, ~~characterized in that~~ wherein together with the picture elements (p) classified as ~~"potentially defective"~~ potentially defective, the image parameters of the relevant X-ray image (I) are saved in step [[a)]] (a), and that ~~each~~ different defect maps are generated for different ranges of values of the specified image parameters.

3. (Currently Amended) [[A]] The method according to claim 2, ~~characterized in that~~ wherein the image parameters relate to [[the]] beam quality, [[the]] dose, [[the]] detector temperature and/or [[the]] image geometry.

4. (Currently Amended) [[A]] The method according to claim 1, ~~characterized in that~~ wherein the value (W(p)) of a picture element (p) in an X-ray image (I) classified as ~~"potentially defective"~~ potentially defective is corrected in dependence on the values of its neighboring picture elements (n(p)).

5. (Currently Amended) [[A]] The method according to claim 1, ~~characterized in that~~ wherein an X-ray image (I) is corrected once again on the basis of the current defect map (D) and the candidate map (C_map).

6. (Currently Amended) [[A]] The method according to claim 1, ~~characterized in that~~ wherein the neighborhood (n(p)) assigned to a picture element (p) is defined such that it permits the detection of mutually neighboring defective picture elements.

7. (Currently Amended) [[A]] The method according to claim 6, ~~characterized in that~~ wherein the neighborhood (n(p)) assigned to a picture element (p) comprises those picture elements (p) from a predefined environment whose picture element value lies at

least a specified number n of orders of magnitude below the maximum and/or minimum for all the picture element values in [[the]] an entire environment.

8. (Currently Amended) [[A]] The method according to claim 1, ~~characterized in that~~ wherein the classification in step [[a)]] (a) excludes those picture elements for whose environment the values of the picture elements lie outside a predefined range (W_{min}, W_{max}).

9. (Currently Amended) [[A]] The method according to claim 1, ~~characterized in that~~ wherein the picture elements (p) correspond to individual pixels or groups of pixels, wherein the groups of pixels include ~~in particular to~~ rows or columns of pixels.

10. (Currently Amended) [[A]] The method according to claim 1, ~~characterized in that~~ wherein a picture element (p) is classified as ~~"potentially defective"~~ potentially defective if its value (W(p)) is below the minimum or above the maximum of the values of the picture elements in its neighborhood (n(p)).

11. (Currently Amended) [[A]] The method according to claim 1, ~~characterized in that~~ wherein the ~~specified~~ other criteria specified in step [[b)]] (b) comprise the following: (i) that the picture element (p) has at least been examined in a specified number of X-ray images (I), (ii) that the picture element (p) has been classified as ~~"potentially defective"~~ potentially defective in at least a specified number of cases, [[and/or]] and (iii) that the picture element (p) has been classified as ~~"potentially defective"~~ potentially defective in at least a specified percentage of the cases examined.

12. (Currently Amended) [[A]] The method according to claim 1, ~~characterized in that~~ wherein the defect map (D) is refreshed continuously with the aid of [[the]] X-ray images (I) that are analyzed on an ongoing basis.

13. (Currently Amended) Data-processing equipment to correct defects in X-ray images (R) with the aid of a defect map (D), wherein the data-processing equipment [[is]] comprises processing components, memory, and software modules equipped to perform ~~the following steps~~:

[[a)]] (a) checking all picture elements (p) of an X-ray image (I) which has been pre-corrected with a current defect map (D) to determine whether values (W(p)) of a corresponding picture element lies between specified limits W_{min} and W_{max}, and if so, then (a.1) making corresponding entries in a test number map (T_map) to record how often each picture element has been analyzed for defects and (a.2) ~~classification of~~ classifying respective ones of the picture elements (p) on an X-ray image (I), generated via an X-ray unit, which has been pre-corrected with the current defect map (D), via a defective picture elements correction module, as ~~"potentially defective"~~ potentially defective if their corresponding value (W(p)) differs from [[the]] an interval ([G_u, G_o]) of [[the]] picture element values in a neighborhood (n(p)) assigned to it by a specified degree, and saving [[of the]] picture elements (p)[[,]] thus classified in a candidate map (C_map) memory;

(b) refreshing the defect map (D) with the aid of (b.1) the T_map and (b.2) the C_map, wherein a first check is performed for each picture element (p) to determine whether it is entered in the T_map more than a minimum number of times, and a further check is performed to determine whether the corresponding picture element (p) has been classified as a potential defect more than another minimum number of times, and responsive to positive outcomes of the first and second checks, then refreshing the defect map (D) with all the corresponding picture elements (p) from the candidate map (C_map) memory (i) which have been classified as ~~"potentially defective"~~ potentially defective ~~in several X-ray images (I)~~ and (ii) which also fulfill other criteria~~, where appropriate~~; and

(c) ~~correction of~~ correcting further X-ray images (R) with the aid of the refreshed defect map (D), via the defective picture elements correction module.